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## PACKAGES FOR SEMICONDUCTOR DIE

## Abstract

A ball grid array assembly includes a package cover that encapsulates a die and a portion of a substrate to which the die is attached, including an edge of the substrate.

5 Encapsulation of the substrate edge by the cover reduces penetration of moisture or other contaminants into the substrate. The cover includes a rib that extends to contact a circuit board to which the ball grid array assembly is connected. With such a rib, planarity between the circuit board and the substrate is maintained during soldering.